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(54) Title: TEST AND BURN-IN APPARATUS THAT PROVIDES VARIABLE THERMAL RESISTANCE

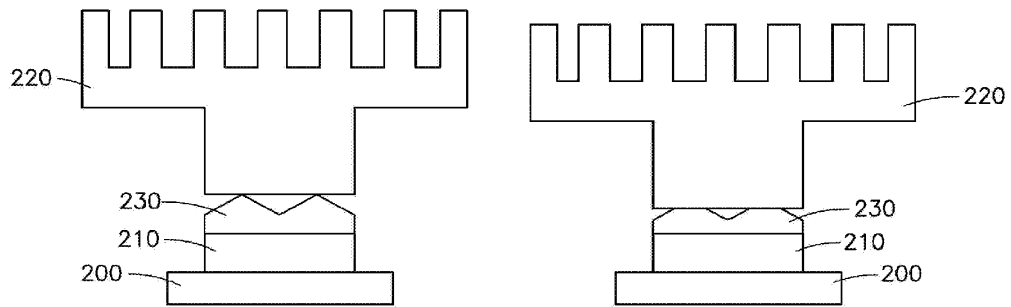


FIG. 6

(57) Abstract: A system and method introduce a variable thermal resistance to test and burn in apparatus. The system and method provide an efficient design for more accurate temperature control of integrated circuits. A system for testing integrated circuit (IC) packages comprises a plurality of IC testing socket bases arranged on a testing board and configured to receive a plurality of IC packages. A plurality of IC testing socket lids are arranged to attach to the testing board. Each IC testing socket lid comprises a temperature sensor to thermally contact the IC package and measure a surface temperature of the IC package, a heat sink is placed into either proximity to or directly in contact with the IC package, and an electronic controller to receive signals from the temperature sensor. A variable thermal resistance is introduced in the thermal conductive pathway formed from the device under test (DUT), the DUT contact and the heat sink such that the heat introduced into the system can be controlled and the adverse effects of unwanted cooling can be mitigated.



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